

Bureau of Mines and Mine Safety  
Final Report  
Date: April 25th, 2014  
Fatality Report from October 11, 2013  
Five Star Mining Incorporated  
Prosperity Mine  
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Assistant Commissioner

## Authority for Inspection

The Bureau of Mines and Mine Safety (herein the "Bureau of Mines") exists as a bureau within the department of Labor by virtue of Ind. Code 22-1-1-4(1). Ind. Code 22-1-1-5(a) (4) requires the Bureau of Mines to investigate all fatalities occurring in underground mine operations for the purpose of data collection. Ind. Code 22-10-3-6 grants the Director (hereinafter the Assistant Commissioner of the Bureau of Mines) the authority to enter, examine, and inspect all commercial coal mines and facilities. Pursuant to 30 U.S.C. 801 et seq., (the Federal Mine Safety and Health Act of 1977, hereinafter "the act"), the Interagency agreement Between the Mine Safety and Health Administration U.S. Department of Labor dated March 29, 1979, the Mine Safety and Health Administration (hereinafter "MSHA") has jurisdiction over coal mines and each operator of a coal mine.

The investigation of this accident was done by the MSHA District 8 office in Vincennes, Indiana. MSHA was the lead investigator, with the Indiana Bureau of Mines accompanying MSHA pursuant to Indiana law for the purpose of collecting data.

Indiana Code 22-1-1-5 provides that the investigation of the Bureau of Mines shall not interfere with the investigations by MSHA. As nothing in state law gives the Bureau of Mines authority to assess fines, issue citations, or enforce abatement orders, the doctrine of preemption clearly accords federal MSHA the primary role as investigator.

## General Information

Five Star Mining Inc. operates the Prosperity mine, located in Pike County Indiana eight miles west of Petersburg, Indiana. The mine at the time of the accident employed 377 miners, of which 282 worked underground. The mine is accessed via a box cut pit and a slope. The mine operates 3 shifts and mines in the Springfield #5 coal seam.

## Overview of the Accident

October, 11th, 2013, Friday, at approximately 2:20 pm, 59 year old Larry W. Schwartz (victim), was injured when he was caught between a shuttle car and a coal rib on the # 5 Unit at Prosperity Mine. The victim died approximately 2 hours after the incident. The victim was in the crosscut between the #6 and #7 entries (refer to diagram B.)

## Description of the Accident

On Friday, October 11, 2013, the Dayshift (B) Crew at 5 Star Coal Company's Prosperity Mine, MSHA ID # 12-02249, entered the mine at 7:00 am. They traveled to the #5 Unit (see diagram A) and arrived at 7:40 am. Unit # 5 was a fishtail unit normally running the left and right side of the unit with two mining machines and two shuttle cars per side, a bolter per side and two loading crews. Chris Tooley, (SECTION MINE FOREMAN), started his on- shift examination at 8:00 am.

On this day the left side of the unit was idled because the unit was finishing up a room panel and only needed to make necessary cuts on the right side to finish the unit and move to a new set up. With the left side of the unit being idled the left side shuttle car operators, Larry Schwartz (Victim) and Brian Truelove (SHUTTLECAR OPERATOR) were taken outby to the new 5-D unit setup area, (see diagram A), by Derek Kolb (OUTBY SUPERVISOR), at 9:00 am to build walls and hang doors while the right side crew finished the cutting sequence on the right side of Unit #5.

The section crew started mining coal approximately 9:00 am, cutting coal in the #10 Entry between crosscut #50 and #49 (see diagram B). The (MINER OPERATORS) were Joel Meece and Terry Baker. The coal was loaded in the proper sequence with no major disruptions. At 11:00 am Tom Bowers (PRODUCTION FOREMAN) arrived on the unit and did a walk around inspection of the unit and the equipment. He then met with Tooley and they discussed using one of the shuttle cars that normally ran on the left side of the unit, in the mining cycle on the right side, to get the cutting sequences finished sooner and possibly move the unit out by the weekend.

Tooley phoned out the production report to Soap Wilson, (MINE MANAGER), at 12 pm and between 12 and 1 pm the decision was made to have Meece, (MINER OPERATOR) run the 3<sup>rd</sup> shuttle car, #28, from the left side of the unit. Meece was task trained on the # 28 shuttle car by Kevin Western the (# 31 SHUTTLE CAR OPERATOR) running coal on the right side of Unit. Baker, who was helping Meece, was now the (MINER OPERATOR) for the right side miner.

At 1:15 pm Tooley starts his preshift examination. At 2:00 pm Bowers sees Schwartz and Truelove traveling inby on the travelway as he was leaving the unit. Shortly after this Tooley and Gary Shelton (MECHANIC) met Kolb, who had taken Schwartz and Truelove outby to work, on the travelway. Tooley directed Truelove to go in on the unit and scoop #1 room and told Schwartz to tell Baker that he would be the papered person in charge of the unit, while Tooley called out his pre-shift and maintenance report. Tooley had to go outby because the phone service on Unit #5 was not working properly.

Both Schwartz and Truelove proceeded to the section loading point. Truelove left Schwartz at the feeder while he proceeded to go inby to get the scoop and scoop #1 room as he was directed. Schwartz left the loading point to proceed to the miner to tell Baker that he would be the papered person on the unit while the section foreman was gone. Schwartz traveled from the feeder to #47 xcut between #5 and #6 entries and talked to Meece. The #28 shuttle car was parked at a check curtain located near the #6 intersection in crosscut #47. After a brief conversation and before Schwartz proceeded inby he asked Meece the direction of travel of the #28 shuttle car. Meece told Schwartz he would be traveling to #7 entry and would be turning left toward crosscut #48 and then to the last open crosscut for the next cut in room #3 right (see diagram B). Schwartz then proceeded through the check curtain, flagged Meece, and verbally yelled "I am clear." Meece then proceeded to turn his shuttle car on, flashed the lights from the boom end to load end, rang the sounding bell, released his brakes and proceeded to travel through the curtain. He traveled approximately 48 feet when he heard someone yelling from the left side of his shuttle car. Meece stopped his shuttle car, set the brake, exited the cab and heard Schwartz yell "back up". He entered the cab, started his shuttle car, released the brakes, and backed away from Schwartz. He proceeded to the load end of his car to render aid to Schwartz, who had been struck by the shuttle car (See diagram B & C)

The #5 Unit includes MMU 005 and MMU 007. MMU 005 was on the left side of the unit, and MMU007 was on the right side of the unit. The MMU oo5 equipment had been removed except for one roof bolting machine. A small set of rooms on the MMU 007 were set up to allow mining through the weekend when a move was more convenient for production.

Diagram A

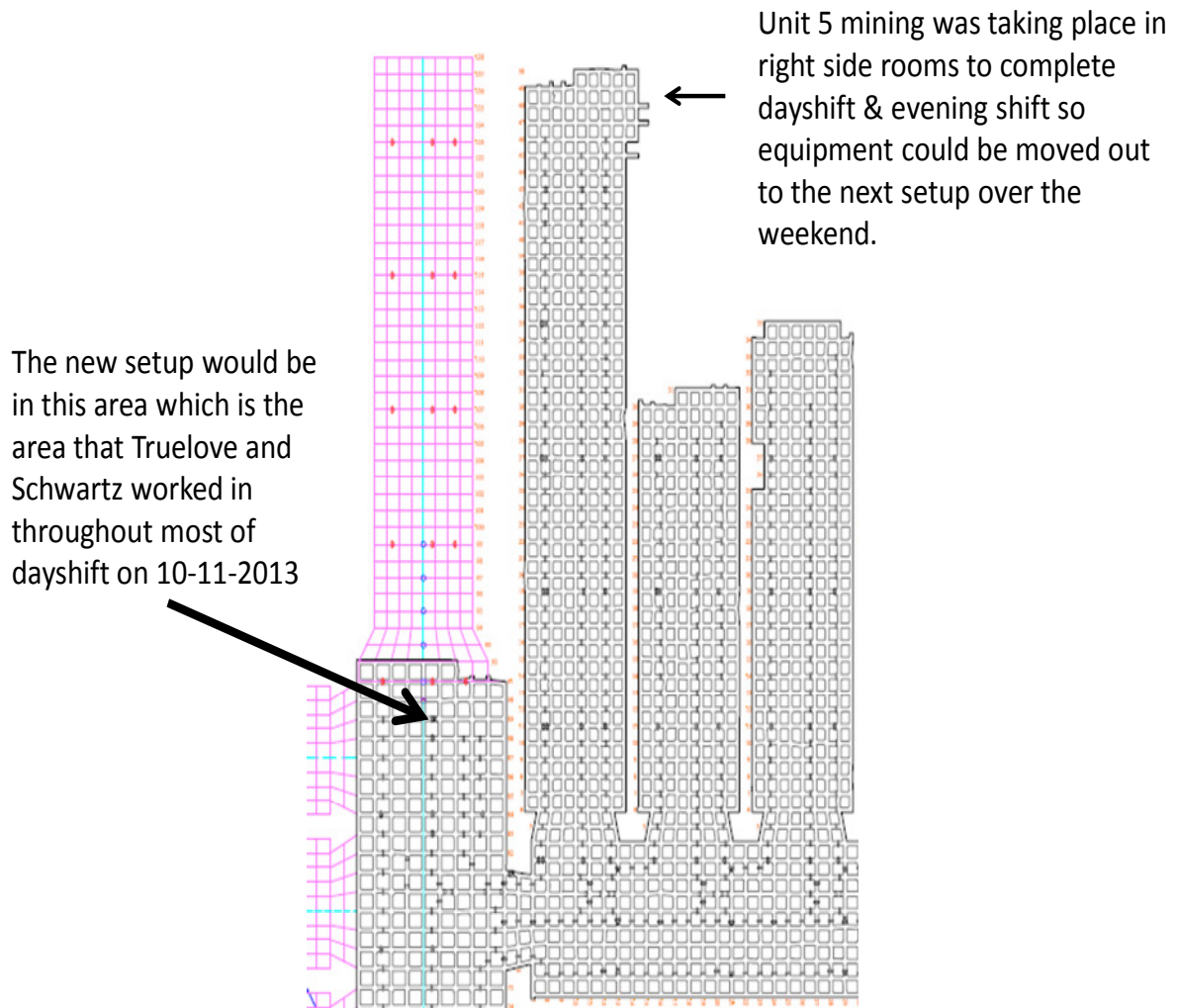
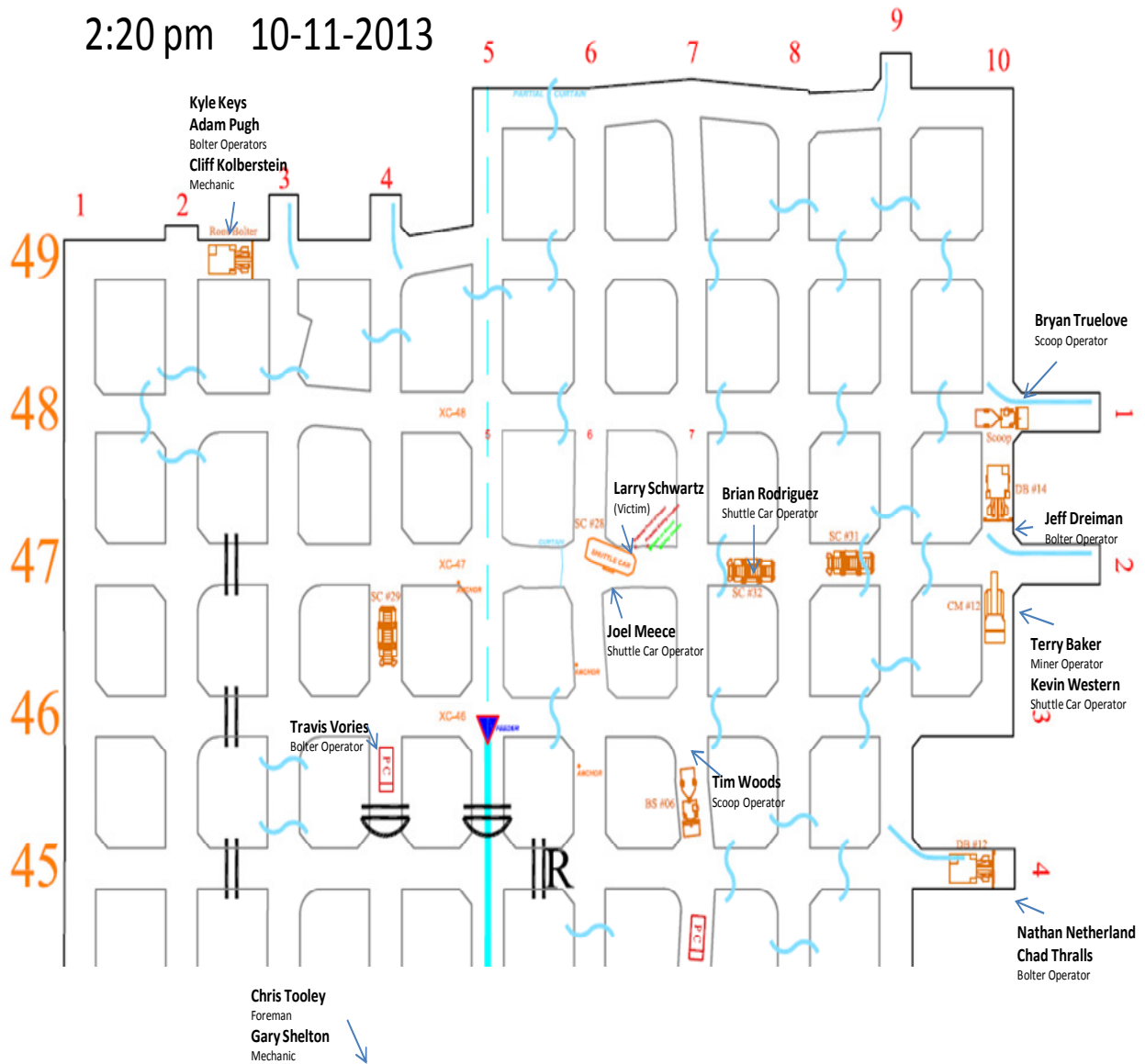


Diagram B

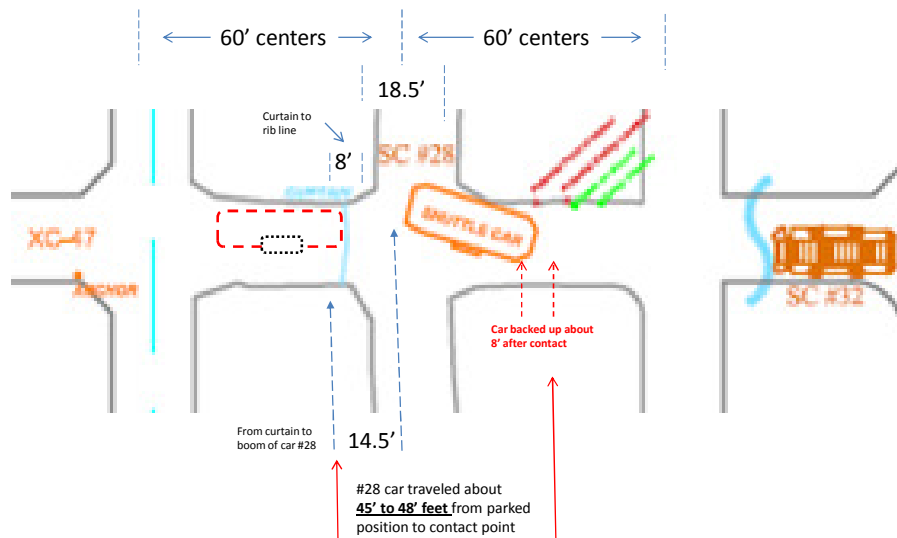
## Location of Equipment & People at the Time of the Accident

2:20 pm 10-11-2013



## Diagram C

### Distance & Timing Related to Accident on 10-11-2013



Testing estimated that the time from point of "I am clear" to contact was about **28 seconds**

### TIME LINE OF EVENTS AFTER THE ACCIDENT

At 2:20 pm Brian Rodriguez (#32 SHUTTLE CAR OPERATOR), whose shuttle car was parked nearby between #7 and #8 entry in crosscut #47 (See diagram B) was the first to reach Schwartz, and was aided by Meece. They began administering first aid to Schwartz. The call out to the Communication center was at 2:25 pm and medical emergency units were notified. Between 2:20 pm and 2:35 pm several additional crew members came to render and assist in the first aid and transportation of Schwartz. At 2:50 pm the underground ambulance left with Schwartz to take him out of the mine. The underground ambulance reached the surface of the mine at 3:26 pm where it proceeded to the Landing Zone where and Air Evac Helicopter and the Pike county ambulance service waited to render medical aid. Medical personnel treated and transferred Schwartz onto the Air Evac helicopter to transport him to the University Hospital in Louisville, Kentucky. At 4:10 pm Mr. Schwartz passed away during the flight to the University Hospital. The mine was not notified of Mr. Schwartz's passing, until that evening around 10:30 pm, pending family notification.

## #28 SHUTTLE CAR

The #28 shuttle car that Meece was running at the time of the accident was a NARCO shuttle car. The model # is N12110, and the serial # is N13A7991. The operator's deck is on the left side of the car and is located in the center of the car. It has two seats and two sets of controls and is steered by a steering lever that can be operated from either seat in the operator's compartment.

The shuttle car is typically loaded with a load of coal within 3 to 4 inches of the mine roof. The mining height is approximately 60 to 68 inches. The shuttle car was originally equipped with meshed grating in the sideboard at the operator's compartment, which allowed about a 3 inch by 75 inch window of visibility into the conveyor area and the offside of the operator's compartment. This mesh grating had been removed and a solid piece of metal replaced the mesh screen to prevent coal from spilling into the operator's compartment.

## TESTING OF THE SHUTTLE CAR

Testing showed that a person standing at the load end of the empty shuttle car, which position the victim was in, was not visible to the operator, through the space that the metal had been put into, but the shuttle car is equipped with video mounted cameras on both ends of the offside shuttle car and close to the headlights. The camera's view is displayed on a pair of screens inside the operator's compartment. This screen can be viewed in each direction the car is traveling. When the shuttle car was trammed through the curtain between #5 and #6 entries with the load end through the curtain as it would have been just before the accident, a person standing in front of the car near the area where the victim was found was easily visible. There was no mechanical defect in any of the equipment that was tested and all training records were up to date.

## CONTRIBUTING FACTORS

The car operator, (Meece), in the interviews said that he turned his lights on from forward to reverse when he went through the curtain and the camera may not have picked up the light in front of the car instantaneously. There could have been a brief lag time before the camera focused, referring to Diagram C it was approximately 28 seconds from the time the car went through the curtain until the victim was contacted with the shuttle car. (The car was trammed through the curtain to ascertain a time line.) The operator also said the victim may have been out of the peripheral view of the camera and that he (Meece) was focused on another cable that ran through the crosscut, and that the victim could have been in the corner where the corner of the pillar had been trimmed off.

## CONCLUSION

The state concurs with MSHA's findings that limited vision do to the alterations of the shuttle car and miscommunication of the shuttle car's travel route, resulted in the fatal accident.